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(71) Applicant (for all designated States except US): **CANON KABUSHIKI KAISHA [JP/JP]**; 3-30-2, Shimomaruko, Ohta-ku, Tokyo 146-8501 (JP).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **HIRAYAMA, Nobuyuki [JP/JP]**; c/o Canon Kabushiki Kaisha, 3-30-2, Shimomaruko, Ohta-ku, Tokyo 146-8501 (JP).

(74) Agent: **OHTSUKA, Yasunori**; 7th Fl., Shuwa Kioicho Park Bldg., 3-6, Kioicho, Chiyoda-ku, Tokyo 102-0094 (JP).

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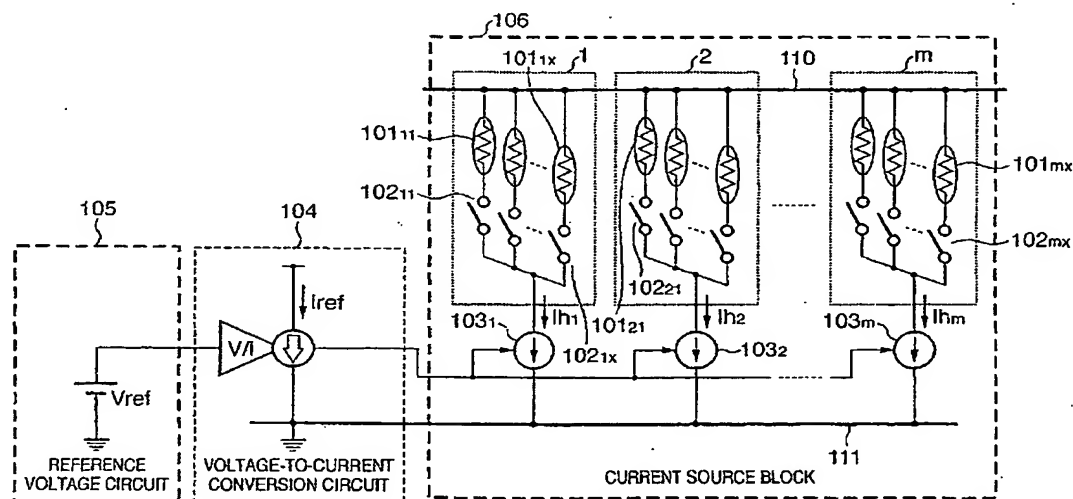
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(54) Title: **PRINTHEAD, PRINTHEAD SUBSTRATE, INK CARTRIDGE, AND PRINTING APPARATUS HAVING PRINT-HEAD**



(57) Abstract: A printhead includes a plurality of switching elements (102) which are arranged in correspondence with respective printing elements (101) and control energization to the respective printing elements, a reference voltage circuit (105) which generates a reference voltage, a current generation circuit (104) which generates a reference current (Iref) on the basis of a reference voltage (Vref) generated by the reference voltage circuit, and a plurality of constant current sources (103) which supply, in accordance with the reference current (Iref) generated by the current generation circuit, constant currents via the switching elements arranged in correspondence with the respective printing elements.

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